1. Solve the quadratic equation below. Then, choose the intervals that the solutions belong to, with $x_1 \leq x_2$ (if they exist).

$$19x^2 - 15x + 2 = 0$$

A. $x_1 \in [2.86, 3.71]$ and $x_2 \in [11.49, 13.24]$

B. $x_1 \in [-1.4, -0.06]$ and $x_2 \in [-0.47, 0.17]$

C. $x_1 \in [-0.2, 0.26]$ and $x_2 \in [0.42, 0.63]$

D. $x_1 \in [-8.47, -7.98]$ and $x_2 \in [8.44, 9.67]$

E. There are no Real solutions.

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2. Solve the quadratic equation below. Then, choose the intervals that the solutions x_1 and x_2 belong to, with $x_1 \leq x_2$.

$$25x^2 - 10x - 24 = 0$$

A. $x_1 \in [-20.67, -19.77]$ and $x_2 \in [29.7, 30.12]$

B. $x_1 \in [-1.68, -1.44]$ and $x_2 \in [0.34, 0.8]$

C. $x_1 \in [-1.02, -0.6]$ and $x_2 \in [1.04, 1.54]$

D. $x_1 \in [-4.46, -3.87]$ and $x_2 \in [0.15, 0.31]$

E. $x_1 \in [-0.54, 0]$ and $x_2 \in [2.39, 2.52]$

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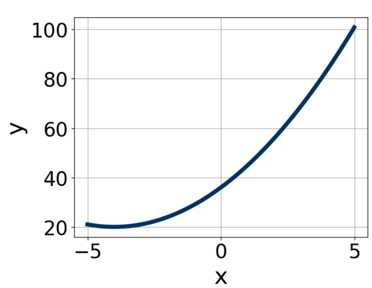
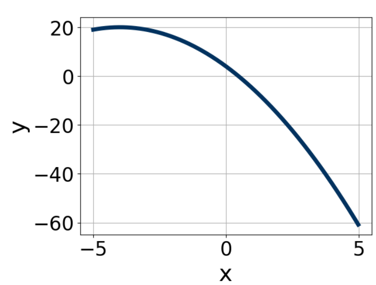
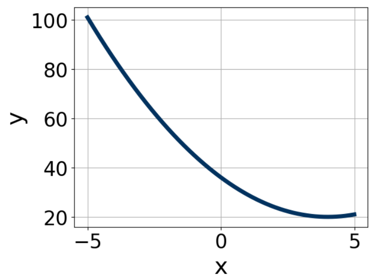
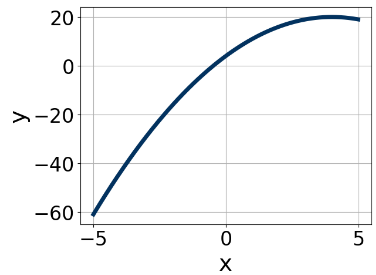
3. Graph the equation below.

$$f(x) = -(x + 4)^2 + 20$$

A. 

B. 

C. 

D. 

E. None of the above.

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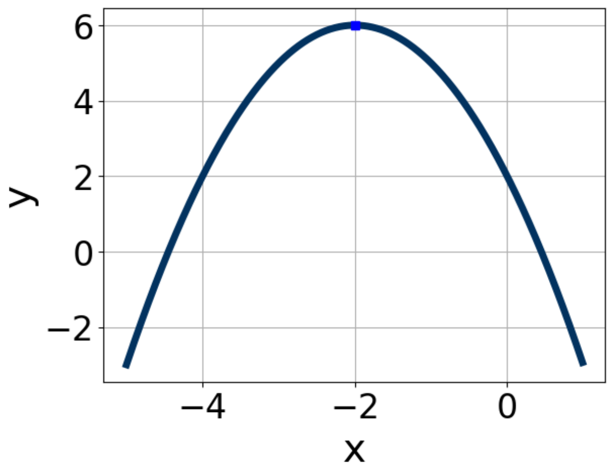
4. Write the equation of the graph presented below in the form $f(x) = ax^2 + bx + c$, assuming $a = 1$ or $a = -1$. Then, choose the intervals that $a, b,$ and c belong to.



A. $a \in [0.4, 1.1], \quad b \in [3, 6], \text{ and } \quad c \in [8, 11]$

B. $a \in [-2.2, -0.7], \quad b \in [3, 6], \text{ and } \quad c \in [1, 3]$

C. $a \in [-2.2, -0.7], \quad b \in [3, 6], \text{ and } \quad c \in [-11, -7]$

D. $a \in [-2.2, -0.7], \quad b \in [-6, -2], \text{ and } \quad c \in [1, 3]$

E. $a \in [0.4, 1.1], \quad b \in [-6, -2], \text{ and } \quad c \in [8, 11]$

---

5. Factor the quadratic below. Then, choose the intervals that contain the constants in the form $(ax + b)(cx + d); b \leq d$.

$$24x^2 + 2x - 15$$

A. $a \in [-1.4, 3.3], \quad b \in [-5, 2], \quad c \in [17.7, 19.4], \text{ and } \quad d \in [5, 7]$

B. $a \in [-1.4, 3.3], \quad b \in [-21, -16], \quad c \in [0.7, 1.8], \text{ and } \quad d \in [16, 26]$

C. $a \in [2.5, 5.6], \quad b \in [-5, 2], \quad c \in [3.7, 6.9], \text{ and } \quad d \in [5, 7]$

D. $a \in [6.2, 8.5], \quad b \in [-5, 2], \quad c \in [2.2, 3.4], \text{ and } \quad d \in [5, 7]$

E. None of the above.

---

6. Solve the quadratic equation below. Then, choose the intervals that the solutions x_1 and x_2 belong to, with $x_1 \leq x_2$.

$$25x^2 + 60x + 36 = 0$$

A. $x_1 \in [-31.73, -29.14]$ and $x_2 \in [-30.24, -29.98]$

B. $x_1 \in [-1.73, -0.47]$ and $x_2 \in [-1.36, -1.08]$

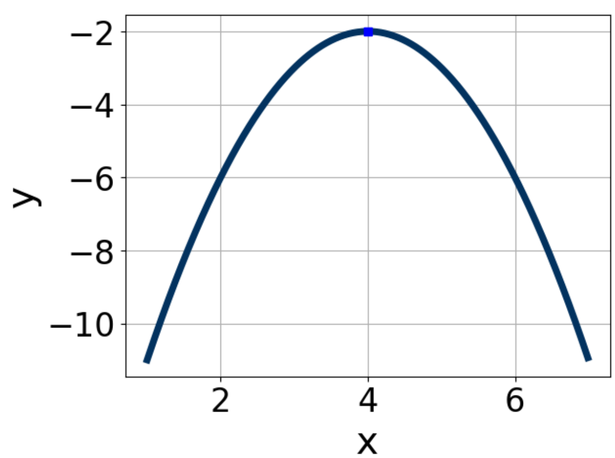
C. $x_1 \in [-7.85, -5.72]$ and $x_2 \in [-0.24, -0.19]$

D. $x_1 \in [-4.58, -3]$ and $x_2 \in [-0.56, -0.37]$

E. $x_1 \in [-3.3, -2.28]$ and $x_2 \in [-0.64, -0.54]$

---

7. Write the equation of the graph presented below in the form $f(x) = ax^2 + bx + c$, assuming $a = 1$ or $a = -1$. Then, choose the intervals that $a, b,$ and c belong to.



A. $a \in [-1.6, -0.3], \quad b \in [-11, -7], \text{ and } \quad c \in [-16, -12]$

B. $a \in [-1.6, -0.3], \quad b \in [7, 10], \text{ and } \quad c \in [-18, -16]$

C. $a \in [-0.2, 1.4], \quad b \in [-11, -7], \text{ and } \quad c \in [13, 16]$

D. $a \in [-0.2, 1.4], \quad b \in [7, 10], \text{ and } \quad c \in [13, 16]$

E. $a \in [-1.6, -0.3], \quad b \in [-11, -7], \text{ and } \quad c \in [-18, -16]$

---

8. Solve the quadratic equation below. Then, choose the intervals that the solutions belong to, with $x_1 \leq x_2$ (if they exist).

$$13x^2 + 10x - 4 = 0$$

A. $x_1 \in [-0.39, 0.11]$ and $x_2 \in [1.03, 1.41]$

B. $x_1 \in [-1.3, -0.98]$ and $x_2 \in [0.07, 0.31]$

C. $x_1 \in [-19.67, -16.86]$ and $x_2 \in [16.94, 17.17]$

D. $x_1 \in [-14.27, -13.31]$ and $x_2 \in [3.72, 3.78]$

E. There are no Real solutions.

---

9. Factor the quadratic below. Then, choose the intervals that contain the constants in the form $(ax + b)(cx + d); b \leq d$.

$$24x^2 - 2x - 15$$

A. $a \in [8.8, 13], \quad b \in [-6, -3], \quad c \in [1.98, 3.21], \text{ and } \quad d \in [3, 11]$

B. $a \in [2.4, 4], \quad b \in [-6, -3], \quad c \in [7.53, 8.05], \text{ and } \quad d \in [3, 11]$

C. $a \in [4.1, 7.5], \quad b \in [-6, -3], \quad c \in [3.91, 4.62], \text{ and } \quad d \in [3, 11]$

D. $a \in [-0.1, 2.2], \quad b \in [-24, -14], \quad c \in [0.85, 1], \text{ and } \quad d \in [15, 25]$

E. None of the above.

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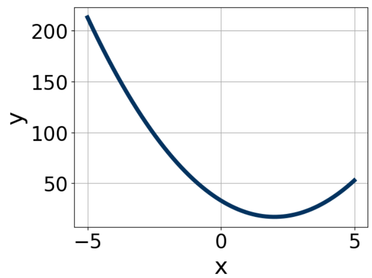
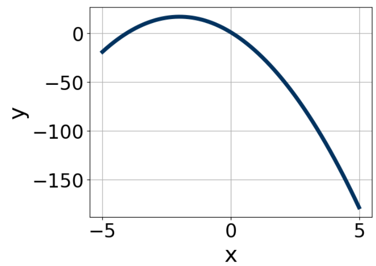
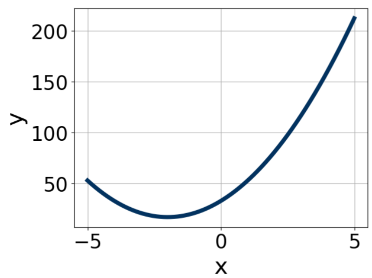
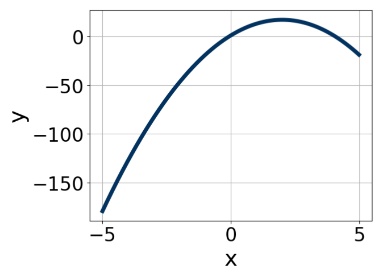
10. Graph the equation below.

$$f(x) = (x - 2)^2 + 17$$

A. 

C. 

B. 

D. 

E. None of the above.